

CLAIMS

1. A microporous hollow fiber membrane having variable mechanical and filtration properties in the lengthwise direction, the said microporous hollow fiber membrane being formed by walls possessing a system of slit-like lengthwise oriented micropores characterized in that size and density of the micropores are constant across the fiber and variable along the length of the fiber, the size and density of the said micropores decreasing towards the fiber ends.
2. A microporous hollow fiber membrane as claimed in claim 1, wherein the porosity is 20 - 90%, preferably 40 - 60%, in the middle section and 10 - 50%, preferably 20 - 40%, in the end sections.
3. A microporous hollow fiber membrane according to claim 1, in which the length is 0.1 - 10 m, preferably 0.5 - 2 m, in the middle section and 0.02 - 0.5 m, preferably 0.1 - 0.2 m, in the end sections.
4. A microporous hollow fiber membrane according to claim 1, in which polyolefin material, mainly polypropylene and polyethylene, or a blend of the two, is used to make the said

fiber.

5. A method of preparation of a microporous hollow fiber membrane as claimed in claim 1, in which a hollow non-porous fiber - the precursor - is prepared by spinning the polymer melt, the said precursor being annealed in the unextended condition at a temperature not lower than 40 K below the polymer melting point for at least 0.5 hours, the fiber being extended by 7 to 50 % at a speed of at least 20 % per minute at the normal temperature, followed by an extension at the normal or higher temperature in a chamber permitting lengthwise periodical thermal shielding of the fiber by at least -2 K, the said extension proceeding at a speed of up to 50 % per minute, the resulting product being stabilised at a temperature lower than or equal to the temperature of the thermal shielding, the fiber being subsequently cut in places of the thermal shielding and paralleled, most frequently into bundles or curtains.